

REMARKS/ARGUMENTS

Reconsideration of the application is requested.

Claims 1-5 remain in the application. Claim 1 has been amended.

In the section entitled "Claim Objections" on page 2 of the above-identified Office action, claim 1 has been objected to because of informalities. Appropriate correction has been made.

In item 2 on pages 2-4 of the above-mentioned Office action, claims 1-5 have been rejected as being unpatentable over Mu et al. (US Pat. No. 5,612,254) in view of Taguchi et al. (US Pat. No. 5,308,793) under 35 U.S.C. § 103(a).

As will be explained below, it is believed that the claims were patentable over the cited art in their original form and the claims have, therefore, not been amended to overcome the references.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful.

Claim 1 calls for, inter alia:

forming a diffusion barrier layer on a substrate having at least a first insulating layer with a first conductive structure embedded therein;

forming a second insulating layer on the diffusion barrier layer;

etching a contact hole into the second insulating layer above the first conductive structure, wherein a surface of the first conductive structure is covered with the diffusion barrier layer within the hole;

forming spacers on side walls of the contact hole, the spacers acting as a barrier to diffusion of a material from the first conductive structure into the second insulating layer;

opening the contact hole as far as the surface of the first conductive structure; and

forming in the contact hole a second conductive structure conductively connected to the first conductive structure.
(Emphasis added.)

Neither Mu et al. nor Taguchi et al. disclose the following features of claim 1 of the instant application:

- 1) According to claim 1 of the instant application, the surface of the first conductive structure (6) is covered with the diffusion barrier layer (7) within the hole (10) (see Figs. 1-3). In contrast, according to Fig. 6 of Mu et al., the first conductive structure 41 is not covered with the diffusion barrier layer 23, but is covered with a different layer 60.
- 2) According to claim 1 of the instant application, the contact hole (10) is opened as far as the surface of the

first conductive structure (6) (see Fig. 4). In contrast, according to Fig. 6 of Mu et al., the contact hole is not opened as far as the surface of the first conductive structure 41. The layer 60 is between the contact hole and the first conductive structure 41.

- 3) According to claim 1 of the instant application, the second conductive structure is conductively connected to the first conductive structure. In contrast, according to Fig. 6 of Mu et al., the second conductive structure 61 is not conductively connected to the first conductive structure 41.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claim 1. Claim 1 is, therefore, believed to be patentable over the art and since all of the dependent claims are ultimately dependent on claim 1, they are believed to be patentable as well.

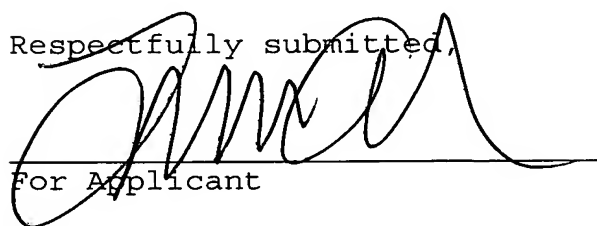
In view of the foregoing, reconsideration and allowance of claims 1-5 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate a telephone call so that, if possible, patentable language can be worked out.

Applic. No.: 10/646,218
Amdt. Dated March 26, 2004
Reply to Office action of January 28, 2004

If an extension of time for this paper is required, petition for extension is herewith made. Please charge any fees which might be due with respect to 37 CFR Sections 1.16 and 1.17 to the Deposit Account of Lerner and Greenberg, P.A., No. 12-1099.

Respectfully submitted,



For Applicant

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March 26, 2004

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